

Remarks

Reconsideration of this Application is respectfully requested. Claims 1-19, 21, 22, 25-27, 29, 30, 34-41, and 43-46 are pending in the application, with claims 1, 9, 18, 35, and 38 being the independent claims. Claims 1-17 and 35-37 have been withdrawn from consideration. Based on the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Rejections under 35 U.S.C. § 103

Simon and Maufer

The Examiner has rejected claims 18, 19, 21, 25-27, 38, 39, and 45-46 under 35 U.S.C. § 103(a) as allegedly being anticipated by Simon *et al.*, U.S. Published Patent Application No. 2003/0093691 ("Simon"), in view of Maufer *et al.*, U.S. Published Patent Application No. 2003/0233576 ("Maufer"). Applicant respectfully traverses this rejection.

The combination of Simon and Maufer does not teach or suggest each and every limitation of independent claims 18 and 38. In Simon, the security association [SA] repository update procedure "is triggered when an end node 1009 terminates a link-layer association 1006, 1008 (Block 1200) with an edge router 1001 (for example, by ceasing communications with an access point pursuant to the IEEE 802.11 or Bluetooth link-layer protocols, where that access point is on the same network segment as the edge router 1001)." (Simon, [0080]). The Office Action acknowledges that "Simon does not explicitly teach when packets are sent when a sequence number in the security association information associated with the [sic] first secure packet flow reaches a predefined value."

(Office Action, p. 5.) However, the Office Action alleges that Maufer discloses this element. Applicant respectfully disagrees.

As discussed in Applicant's Reply filed on October 7, 2009, Maufer describes that "AH and ESP each use the Sequence Number field in the same way, in that it starts from '0x00-00-00-01' in both cases and is incremented by 1 for every packet that is sent, and that it cannot exceed 0xFF-FF-FF-FF." (Maufer, ¶[0088].) Maufer further describes that renegotiation of a SA occurs "[o]nce a Sequence Number value gets within 33% or less of 0xFF-FF-FF-FF." (Maufer, ¶[0090].) Thus, Maufer describes that a security association "expires" if the sequence count parameter for the security association exceeds the value of "0xFF-FF-FF-FF" and also describes when negotiation of a new security association can occur based on this form of "expiration."

In the Office Action, the Examiner equates the process of Maufer to renegotiation of SA parameters, "resulting in a change of security parameters." (Office Action, p. 3.) Applicant respectfully disagrees. Maufer states that the renegotiation is to establish a "new SA" and not to update parameters of an existing SA. (Maufer, ¶ [0090]). In contrast, Applicant's independent claims are directed to updating parameters of an existing SA. For example, Applicant's independent claims recite "updat[ing] a parameter in the set of parameters of a security association associated with the first secure packet flow... send[ing] the updated security association parameter associated with the first secure packet flow from the first security processor to the second security processor in a first update packet when a sequence number in the set of security association parameters associated with the first secure packet flow reaches a first predefined value."

The combination of Simon and Maufer therefore does not teach or suggest:

updating a parameter in the set of parameters of a security association associated with the first secure packet flow;

...

updating a parameter in the set of parameters of a security association associated with the second secure packet flow;

sending the updated security association parameter associated with the first secure packet flow from the first security processor to the second security processor in a first update packet when a sequence number in the set of security association parameters associated with the first secure packet flow reaches a first predefined value;

sending the updated security association parameter associated with the first secure packet flow from the first security processor to the second security processor in a first update packet when a sequence number in the set of security association parameters associated with the first secure packet flow reaches a first predefined value

as recited in independent claim 18. The combination of Simon and Maufer further does not teach or suggest:

a first security processor configured to process a first packet flow, update a parameter in the set of parameters of a security association in response to the first packet flow, and send the updated security association parameter associated with the first packet flow in a first update packet when a sequence number in the set of security association parameters associated with the first packet flow reaches a first predefined value; and

a second security processor configured to process a second packet flow, update a parameter in the set of parameters of a security association in response to the second packet flow, and send the updated security association parameter associated with the second packet flow in a second update packet when a sequence number in the set of security association parameters associated with the second packet flow reaches a second predefined value

as recited in independent claim 38.

For at least these reasons, independent claims 18 and 38 are patentable over the combination of Simon and Maufer. Claims 19, 21, 25-27, and 45 depend from claim 18 and claims 39 and 46 depend from claim 38. For at least the above reasons, and further in

view of their own features, dependent claims 19, 21, 25-27, 39, 45, and 46 are patentable over the combination of Simon and Maufer. Reconsideration and withdrawal of the rejection are therefore respectfully requested.

Simon, Maufer, and Xiong

The Examiner has rejected claims 22, 29, 30 and 34 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Simon and Maufer, and in view of Xiong *et al.*, U.S. Published Patent Application No. 2003/0061507 (“Xiong”). Applicant respectfully traverses this rejection.

Claims 22, 29, 30, and 34 depend from independent claim 18. For at least the reasons described above related to Maufer, Xiong does not overcome the deficiencies of Simon and Maufer relative to independent claim 18 described above. For at least these reasons, and further in view of their own features, dependent claims 22, 29, 30, and 34 are patentable over the combination of Simon, Maufer, and Xiong. Reconsideration and withdrawal of the rejection are therefore respectfully requested

Simon, Maufer, and Rosenow

Claims 40, 41, 43, and 44 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Simon and Maufer, and in view of Rosenow *et al.*, U.S. Patent No. 5,022,076 (“Rosenow”). Applicant respectfully traverses this rejection.

Claims 40, 41, 43, and 44 depend from independent claim 38. Rosenow does not overcome the deficiencies of Simon and Maufer relative to independent claim 38 described above. For at least these reasons, and further in view of their own features, dependent claims 40, 41, 43, and 44 are patentable over the combination of Simon,

Maufer, and Rosenow. Reconsideration and withdrawal of the rejection are therefore respectfully requested.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Reply is respectfully requested.

Respectfully submitted,

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